Cal Poly Views

Desert Studies Center with Don Hoyt

Cal Poly Pomona University Library

Desert Studies Center Summary

Cal Poly Views was a weekly interview series broadcast on radio station KWOW-AM. Episodes were 15 minutes long and were hosted by Cal Poly Pomona Director of News and Publications, Ed Pierce, in conversation with Cal Poly Pomona faculty or administrators on general interest topics.

Dr. Don Hoyt was an associate professor of biology at Cal Poly Pomona who taught at the Desert Studies Center. The Desert Studies Center is a California State University field station in the Mojave Desert in California.

Subject Headings

Desert Studies Center
Mojave Desert

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Cal Poly Views Desert Studies Center with Don Hoyt

September 4, 1985

Interview Conducted by Ed Pierce
Transcribed by Iman A. Mirza

EP: KWOW presents, *Cal Poly Views*.

(music)

Hello everyone. Welcome to KWOW's presentation of *Cal Poly Views*. Fifteen minutes each week devoted to interviews concerning subjects of current general interest and featuring faculty or administrators from Cal Poly Pomona. This is your host, Ed Pierce, talking today with Don Hoyt, associate professor of biology at Cal Poly. Together, we'll discuss the Desert Studies Center at Soda Springs, or Zzyzx, California. What is it and how is it used? Today's guest, Dr. Hoyt, teaches vertebrate zoology, physiological ecology, and comparative animal physiology at Cal Poly and came to the university in 1980. All of these subjects have a relationship to the Desert Studies Center. Welcome, Dr. Hoyt.

DH: Hello.

EP: Tell us first, what is the purpose of the Desert Studies Center?

DH: Well, the Center was set up to facilitate the education of the public about the desert, about the ecology, and about the importance of conserving the desert environment.

EP: And it is located—if I may—somewhat near Baker, California?

DH: Yes, it's about 10 miles from Baker. It's on the side of a former health resort and sort of mineral hot springs.

EP: Which was named by its founder, Zzyzx.

DH: Zzyzx.

EP: The word being that he thought he had the last word in healthcare and he also wanted the last word in the dictionary.

DH: That's right.

EP: If that's true, I don't know.

DH: It is the last word in the dictionary (chuckles).

EP: But before that, it was Soda Springs, correct?

DH: That's right. *It was a*—There's a natural spring there that produces water, which is a little bit salty but nevertheless can be used by people and their horses, and so forth to provide them with water that they need to cross the desert. It was located on the Mojave Road, which was a wagon road used to transport supplies from the port of Los Angeles to the forts in the Arizona territory during the Civil War.

EP: One of which, or a remount or redoubt station was at this location, am I correct?

DH: Well, right. They sometimes call it Fort Soda. There was like a corral where they kept horses in a small contingent of cavalry were there. They were there to protect the wagons from the Indians of the Mojave Desert, who would periodically raid the wagon trains and things like that.

EP: And this facility came into the joint-operation or sponsorship, if you will, of the California State University and the Bureau of Land Management. We have been involved—we, the university—for approximately nine to ten years.

DH: That's right. In 1976, the Bureau of Land Management entered into an arrangement with the CSU [California State University] to operate a Desert Studies Center for the purpose of public education. That was a couple of years after Curtis Springer had been evicted from the land. The place had been vandalized and was in pretty serious state of decay when the consortium took it over in 1976.

EP: And I presume the Bureau of Land Management, the federal government, and the California State University had both put money into refurbishing, improving, building things that—

DH: That's right.

EP: —needed repair.

DH: That's right. The seven universities that originally formed the consortium have spent something in excessive $500,000 to refurbish the place and make it a very nice, hospitable place to go now.

EP: And if you and I went there today, what would we find?

DH: Well—

EP: In a way, physical appointment.

DH: There are a number of buildings which have small rooms in them, so that there would be like maybe two bunkbeds in those rooms and we can put four people into those. There are some other rooms that were originally built by Springer to be like family suites and we now use those as bunk rooms so that we can put 10 or 15 students into those. There's the former chapel which

we can use as a classroom, and there's a blackboard, slide projector, and so forth so that we can have slideshows there in the middle of the day. There's a large dining room where we can have meetings or where we can eat if we need to get out of the desert climate, if it's particularly hot, cold, or windy. There's also a well-equipped kitchen so that we can cook food using the normal kinds of stoves and refrigerators that we're all used to using to prepare food. It's not necessary to camp when you go there, and that's one of the things that make it particularly useful for me.

EP: So, when you take your classes, there may be people who are not adept or particularly interested in camping and roughing.

DH: Right, that's one of the things that makes a place particularly useful, I think, for educating the public. Because you don't have to have any particularly special camping equipment, all you need is a sleeping bag or maybe just sheets or blankets to put down on the beds that are already there. You don't have to have any kind of stoves or lights or anything like that, because all of those things are there. You don't have to be a rough and ready desert rat in order to be able to enjoy yourself out there. We tend to feel quite at home there.

EP: I think it's interesting that more than usual kinds of classes can be shown or taught to an advantage out there. I would naturally think of biology and geology, your field of vertebrate zoology and so forth. As I understand it, it's also a great place for archaeology, physics club studies astronomy, and things like that; geography, climatology, even engineering classes, I guess. So, there's a wide range for which it's a living laboratory, if you will.

DH: Yes, it is. And one of the things that's interesting is when several different classes get out there. So, on several occasions, I've been out there with my zoology students and for example, the Physics Club has been out there, and they've invited us to come and look through their telescopes, and we get to see stars, clusters, galaxies, and things like that that we wouldn't get to do. And then, they'll come along with us when we're looking at the animals that we've caught and learned some things like that. We're always picking the minds of the geologists because we study—in my class—the animals and evolution of animals that took place in the Carboniferous, and there's a big outcropping of Carboniferous rock there; and it looks very strange, has funny weathered patterns on it. So, we try to get the geologists to explain to us why is this piece of Carboniferous history sticking up here in the middle of the desert? There's lots of interesting interactions that take place like that.

EP: Am I correct, that it's somewhat unique—unique being one of a kind—but is one of a few places where you can have different kinds of desert sand dunes, outcroppings, and things like this in a near-to-one-another area.

DH: Yeah, in addition to being a very convenient place to take people who aren't used to camping in the desert, it's a very good location for the purposes of my class because what I would like my students to do is to take a look at the desert in some detail. *Many of these people—* Most inhabitants of Southern California, one time or another, have driven through the desert and it looks very inhospitable; it looks like it's all the same and probably, if you even bothered to stop to think about it, wouldn't even imagine that there was very much living there. And we can go out and we can set a string of say, 75 small traps that are live traps that we can

catch animals in and then the animals are unharmed, and we release them. The students are always astounded to see that in maybe 75 traps, we might catch 55 or 60 animals.

EP: [*inaudible*]

DH: And to see that down in the sand dunes, we get maybe one or two particular species of animals. The little way up the alluvial fan, where there are basically the same kind of plants, we suddenly don't catch those animals at all, but we catch some other animals. And then a little further up the string of traps, we get into the rocky hillside area and we find some other species of animals, and we don't catch some of the ones that are down below; so that we have an ideal situation in which we have a variety of desert microhabitats going from sand dune to the Creosote scrub and up into the rocky hillside. The students come away with a very strong, personal experience of the fact that not only are there lots of animals out there, which they never would've imagined to begin with, but there are different species and those species are sorting themselves out; seeing and responding to very subtle differences in the habitat. They go away seeing that the desert's not uninhabited, and it's not all sort of uniform.

EP: And this is what you would term 'physiological ecology?'

DH: Well, my specialty is physiological ecology and that's a discipline in which we put together at the level of the whole animal: the ecology, the anatomy, the behavior, the physiology and that's one of the things that I particularly like about teaching my class there. I can stand there, holding a kangaroo rat in my hand, and I can point to the plants that the animal is obtaining its food from. We can talk about the other species of animals that are there; I can talk about the physiology of the animals, and my students will have heard about the amylin kidney and I can tell them how the kangaroo rat's kidney is especially adaptive for allowing it to live there. So, the physiology of the animal is suited to the environment, the anatomy of the animal is suited to the environment, the behavior of the animal of this particular species suits it to look for food in a particular way and a particular place so that it can coexist with other species of animals that are there. It's a place in which the whole biology of the animal all comes together and rather than thinking about the biology in a fragmented way—the way we tend to study it, in the classroom with physiology in this class, anatomy in that class, and behavior in another class—we sit there and we see the whole thing integrated at the level of the whole organism, which of course, is the level of which it has to be integrated.

EP: You tell a fascinating story of being able to sit on what is today, the edge of a dry lake, and take it from there if you will, with—

DH: Yeah.

EP: —a little vision and imagination, what can you see?

DH: *Well, it's*—To me, it's particularly exciting after having talked about all of the things about this place—the desert aspects of this place. And we've worked our way up the string of traps and we're up on the side of the hillside. And then I can say to students—now that—you now understand something about this place as a desert but 15,000 years ago, at the end of the

Wisconsin glaciation, this was not a desert. There was a huge lake here that was maybe 100 feet deep and there were water birds and water plants. there were flamingoes, ducks, swans, and a wide variety of fish, water plants around the edges, and primitive man camped on these hillsides. And we can still see places where he's cleared the rocks in order to make a sleeping place, and we can see where there were campsites that are located way up on the side of the hill. Why would he be way up on the side of the hill? Well, it's because there was a lake here, and the glaciers in the San Bernardino mountains were melting, and the Mojave River was a huge river and water was flowing through here. It was very, very different so it's a—

EP: Uh huh.

DH: —it's an interesting place to give them some sense of long-term history of a place.

EP: Isn't there something called the Mojave chub, a small fish that's unique to that particular area?

DH: *Yes, there's a*—One of the reasons that the Bureau of Land Management is particularly interested in this size [is] that there are a couple of large artificial ponds that were constructed during the time period when Springer was there—that are currently one of the few places in the desert that are uncontaminated population of Mojave chub are still in existence. This is a small species of fish that formerly inhabited the Mojave River and the Mojave River itself has been invaded by another species, so that this is one of the last hiding places of this particular species.

EP: If I were a listener and was not enrolled in one of your classes, which would be my misfortune, but wanted to visit the Desert Studies Center as a [member of the] public, there are public tours given by the Bureau of Land Management, are they?

DH: That's right. There really are two ways in which you can go out and experience this place for yourself. One of them would be simply to get in touch with the Bureau of Land Management office in Barstow and find out about one of the public tours. They have regularly scheduled public tours and on those days, there is an employee of the BLM, who knows about the history of the place and will take people who just drive down the road. Just show up out there and he'll take them on a tour of the place and tell them about the history and answer their questions. So, you can go out and discover it that way yourself. The other way to experience it would be to enroll in one of the adult education courses that are taught out there. You could call the Desert Studies Office at Cal State Fullerton, and they would be able to tell you about courses; there are courses being taught out there that fall in the natural history of the desert and in the archaeology, and Indian rock art that can be seen out there. So, you could take one of the adult education courses that are out there.

EP: Well, thank you Dr. Don Hoyt. And thank you ladies and gentlemen, for listening to this week's edition to *Cal Poly Views*. Fifteen minutes devoted to discussing topics of current and general interest. If there are subjects which you would like to hear discussed, by faculty or administrative experts from Cal Poly Pomona, please write to *Cal Poly Views*, Office of News and Publications, 3801 West Temple Avenue, Pomona 91768. We hope you will join us again

next week at the same time for another interesting interview when KWOW presents *Cal Poly Views*. This is your host, Ed Pierce speaking.

(music)

End of interview

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